

### Abstract of the Disclosure

A method for adaptively allocating resource can be simply implemented for reducing degradation of performance by effectively separating operations of sub-channel and time slot allocation and selection of modulation method and sequentially processing each of operations. A method for adaptively allocating resource in a communication system to sequentially process sub-carrier/time slot allocation and modulation method selection efficiently includes the step of a) computing average channel gains of sub-carriers/time slots for each user by using channel gains of sub-carriers/time slots for each user; b) computing average numbers of bits for each user by using required data rates and average channel gains of sub-carriers/time slots for each user; c) computing the number of sub-carriers/time slots allocated to each user and allocating the sub-carriers/time slots to each user; and d) selecting a modulation method with respect to each sub-carrier/time slot.